The following is a complete list of the claims now pending. This listing replaces all earlier versions and listings of the claims.

Claims 1-3 (canceled)

Claim 4 *2* (currently amended): A light-scanning optical apparatus according to claim [[2]] 17, wherein the requirement of conditional formula ~~below~~ (3) is satisfied:

$$0.86 < N1 / N2 < 0.92 \qquad (3).$$

Claim 5 *3* (currently amended): A light-scanning optical apparatus according to claim [[2]] 17,

wherein the requirement of [[the]] conditional formula ~~below~~ (4) is satisfied:

$$0.05 < D0 / F < 0.08 \text{ , and} \qquad (4),$$

~~where~~ wherein D0[[:]] is the distance between the deflection plane of the optical deflector and the spherical lens.

Claim 6 *4* (currently amended): A light-scanning optical apparatus according to claim [[2]] 17,

wherein the requirement of [[the]] conditional formula ~~below~~ (5) is satisfied:

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$$0.15 < \frac{(D1/N1+D2+D3/N2)}{F} < 0.20 \text{ , and} \qquad (5),$$

~~where~~ wherein Dl[[:]] is the thickness of the spherical lens, D2[[:]] is the distance between the spherical lens and the first cylindrical lens, and D3[[:]] is the thickness of the first cylindrical lens.

Claims 7-9 (canceled)

Claim 1̶0̶ 5 (currently amended): A light-scanning optical apparatus according to claim [[1]] 1̶7̶ 1, wherein:

said focusing optical system showing power in the ~~subscanning~~ sub-scanning direction has a second cylindrical lens; and

the light beam ~~at image height = 0~~ is made to pass through a position off the optical axis of the second cylindrical lens in the sub-scanning section when the image height is equal to zero (0).

Claim 1̶1̶ 6 (currently amended): A light-scanning optical apparatus according to claim 1̶0̶ 5, wherein [[the]] a direction vector of the light beam reflected by the deflection plane at image height = 0 and the optical axis of the second cylindrical lens are made to show a predetermined angle.

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Claim ~~12~~ 7 (original): A light-scanning optical apparatus according to claim ~~10~~ 5,

wherein the perpendicular to the deflection plane at image height = 0, the optical axis of the

spherical lens and that of the first cylindrical lens are parallel with each other in the sub-scanning

section.

Claim ~~13~~ 8 (currently amended): A light-scanning optical apparatus according to

claim ~~10~~ 5, wherein:

　　　　　　　the perpendicular to the deflection plane at image height=0 and the

optical axis of the first cylindrical lens are parallel with each other in the sub-scanning section;

and[[,]]

　　　　　　　if [[the]] a direction vector of the light beam entering the deflection

plane at image height = 0 and [[the]] a direction vector of the light beam reflected by the

deflection plane are expressed respectively by α1 and α2 and [[the]] a direction vector of the

optical axis of the spherical lens is expressed by β, the requirement of the <u>following</u> conditional

formula ~~below~~ is satisfied[[:]],

$$|\alpha 1 \cdot \beta| > |\alpha 2 \cdot \beta|.$$

Claim ~~14~~ 9 (original): A light-scanning optical apparatus according to claim ~~10~~ 5,

wherein the light beam reflected by the deflection plane at image height = 0, the optical axis of

the spherical lens and that of the first cylindrical lens are parallel with each other in the

sub-scanning section.

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Claim 15 (original): A light-scanning optical apparatus according to claim 10, wherein the light beam emitted from the light source strikes the deflection plane of the optical deflector with a width broader than that of the deflection plane in the main-scanning direction.

Claim 16 (original): A light-scanning optical apparatus according to claim 10, wherein the light beam emitted from the light source strikes the deflection plane of the optical deflector substantially along the center line of the deflection angle of the optical deflector.

Claim 17 (currently amended): A light-scanning optical apparatus comprising:

an optical deflector;

an incidence optical system adapted to cause a light beam emitted from a light source to strike a deflection plane of [[an]] said optical deflector with a predetermined angle in [[the]] a sub-scanning section; and

a focussing focusing optical system for focussing focusing the light beam reflected by the deflection plane of the optical deflector on a surface to be scanned[[;]],

wherein said focussing focusing optical system including includes an fθ lens system having a spherical lens and a first cylindrical lens showing power in the main-scanning direction and an optical system showing power in the sub-scanning direction[[;]],

wherein said focussing focusing optical system satisfying satisfies the requirements of conditional formulas (1) and (2) below:

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$$\left|\frac{(N1-1)}{R2} \cdot F\right| < 0.15 \qquad (1)$$

and

$$\left|\frac{(N2-1)}{R3} \cdot F\right| < 0.15 \; ; \; and \qquad (2)$$

~~where~~ wherein F is the focal length of the fθ lens system in the main-scanning direction, R2 is the radius of curvature of the surface of the spherical lens facing the surface to be scanned, R3 is the radius of curvature of the surface of the first cylindrical lens facing the optical deflector as viewed in the main-scanning direction, N1 is the refractive index of the material of the spherical lens at the operating wavelength, and N2 is the refractive index of the material of the first cylindrical lens at the operating wavelength.

~~F: the focal length of the fθ lens system in the main-scanning direction;~~

~~R2:   the radius of curvature of the surface of the spherical lens facing the surface to be scanned;~~

~~R3:   the radius of curvature of the surface of the first cylindrical lens facing the optical deflector as viewed in the main-scanning direction;~~

~~N1:   the refractive index of the material of the spherical lens at the operating wavelength and~~

~~N2:   the refractive index of the material of the first cylindrical lens at the operating wavelength.~~

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Claim 18 (original): A light-scanning optical apparatus according to claim 17, wherein the left side of the conditional formula (1) and the left side of the conditional formula (2) satisfy the requirement

$$\left|\frac{(N1-1)}{R2}\cdot F\right| < \left|\frac{(N2-1)}{R3}\cdot F\right|.$$

Claim 19 (original): A light-scanning optical apparatus according to claim 17, wherein the light beam emitted from the light source strikes the deflection plane of the optical deflector with a width broader than that of the deflection plane in the main-scanning direction.

Claim 20 (currently amended): A light-scanning optical apparatus according to claim 17, wherein [[said]] the spherical lens and [[said]] the first cylindrical lens also constitute part of said incidence optical system.

Claim 21 (original): A light-scanning optical apparatus according to claim 17, wherein the light beam emitted from the light source strikes the deflection plane of the optical deflector substantially along the center line of the deflection angle of the optical deflector.

Claim 22 (currently amended): A light-scanning optical apparatus according to claim 17, wherein said focusing optical system showing power in the sub-scanning direction has a second cylindrical lens showing power in the sub-scanning direction.

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Claims 23-28 (canceled)

Claim 2~~9~~ 17 (currently amended): ~~An image forming~~ A light-scanning apparatus ~~comprising~~ according to claim ~~29~~ 17 further comprising:

~~a light-scanning optical apparatus according to any of claims 1 through 28;~~

a photosensitive member ~~arranged on said~~ defining at least in part the surface to be scanned whereby the light beam focused on said photosensitive member by said focusing optical system creates an electrostatic latent image;

a developing unit for developing [[an]] the electrostatic latent image formed on said photosensitive member ~~by a light beam caused to scan by said light-scanning optical apparatus~~ into a toner image;

a transfer unit for transferring [[said]] the developed toner image onto a toner image receiving member; and

a fixing unit for fixing the transferred toner image on the toner image receiving member.

Claim 3~~9~~ 18 (currently amended): ~~An image forming~~ A light-scanning apparatus ~~comprising~~ according to claim ~~29~~ 17 further comprising[[:]]

~~a light-scanning optical apparatus according to any of claims 1 through 28; and~~

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a printer controller for transforming code data input from an external device into an image signal and ~~input it~~ inputting the image signal into said light-scanning optical apparatus.

Claims 31-46 (canceled)

Claim ~~47~~ 19 (new): A light-scanning optical apparatus comprising:

a optical deflector;

an incidence optical system adapted to cause a light beam emitted from a light source to strike a deflection plane of the optical deflector with a predetermined angle in a sub-scanning section; and

a focusing optical system for focusing the light beam reflected by the deflection plane of the optical deflector on a surface to be scanned,

wherein said focusing optical system includes an fθ lens system having a first lens showing power in the main scanning direction and a second lens showing power in the main scanning direction and an optical system showing power in the sub-scanning direction;

wherein said focusing optical system satisfies the requirements of conditional formulas

$$\left| \frac{(N1-1)}{R2} \cdot F \right| < 0.15$$

and

$$\left| \frac{(N2-1)}{R3} \cdot F \right| < 0.15, \text{ and}$$

wherein F is the focal length of the fθ lens system in the main-scanning direction, R2 is the radius of curvature in the main scanning direction of the surface of the first lens facing the surface to be scanned, R3 is the radius of curvature of the surface in the main scanning direction of the surface of the second lens facing said optical deflector as viewed in the main-scanning direction, N1 is the refractive index of the material of the first lens at the operating wavelength, and N2 is the refractive index of the material of the second lens at the operating wavelength.

Claim 48 (new): A light-scanning optical apparatus according to claim 47, wherein said apparatus satisfies the requirement of

$$\left| \frac{(N2-1)}{R3} \cdot F \right| < \left| \frac{N1-1}{R2} \cdot F \right|.$$

Claim 49 (new): A light-scanning optical apparatus according to claim 47, wherein the light beam emitted from the light source strikes the deflection plane of the optical deflector with a width broader than that of the deflection plane in the main-scanning direction.

Claim 50 (new): A light-scanning optical apparatus according to claim 47, wherein the first lens and the second lens also constitute part of said incidence optical system.

Claim 51 (new): A light-scanning optical apparatus according to claim 47, wherein the light beam emitted from the light source strikes the deflection plane of the optical deflector substantially along the center line of the deflection angle of the optical deflector.

Claim 52 (new): A light-scanning optical apparatus according to claim 47, wherein said focusing optical system showing power in the sub-scanning direction has a cylindrical lens showing power in the sub-scanning direction.

Claim 53 (new): A light-scanning optical apparatus according to claim 47, wherein said apparatus satisfies the requirement of conditional formula

$$0.86 < N1/N2 < 0.92 .$$

Claim 54 (new): A light-scanning optical apparatus according to claim 47,

wherein said apparatus satisfies the requirement of conditional formula

$$0.05 < D0 / F < 0.08, \text{ and}$$

wherein D0 is the distance between the deflection plane of the optical deflector and the first lens.

Claim 55 (new): A light-scanning optical apparatus according to claim 47,

wherein the first lens comprises a spherical lens and the second lens comprises a cylindrical lens; and

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wherein the requirement of the following conditional formula is satisfied

$$0.15 < \frac{(D1/N1 + D2 + D3/N2)}{F} < 0.20 \text{, and}$$

wherein Dl is the thickness of the spherical lens, D2 is the distance

between the spherical lens and the cylindrical lens, and D3 is the thickness of the cylindrical lens.

Claim 56 (new): A light-scanning optical apparatus according to claim 47,

wherein:

said focusing optical system showing power in the sub-scanning

direction has a cylindrical lens; and

the light beam at image height = 0 is made to pass through a position

off the optical axis of the cylindrical lens in the sub-scanning section.

Claim 57 (new): A light-scanning optical apparatus according to claim 56,

wherein a direction vector of the light beam reflected by the deflection plane at image height=0

and the optical axis of the cylindrical lens are made to show a predetermined angle.

Claim 58 (new): A light-scanning optical apparatus according to claim 56,

wherein the perpendicular to the deflection plane at image height = 0, the optical axis of the first

lens and that of the second lens are parallel with each other in the sub-scanning section.

Claim 59 (new): A light-scanning optical apparatus according to claim 56,

wherein:

the perpendicular to the deflection plane at image height=0 and the

optical axis of the second lens are parallel with each other in the sub-scanning section; and

if a direction vector of the light beam entering the deflection plane at

image height=0 and a direction vector of the light beam reflected by the deflection plane are

expressed respectively by α1 and α2 and a direction vector of the optical axis of the first lens is

expressed by β, requirement of the following conditional formula is satisfied

$$|\alpha 1 \cdot \beta| > |\alpha 2 \cdot \beta|.$$

Claim 60 (new): A light-scanning optical apparatus according to claim 56,

wherein the light beam reflected by the deflection plane at image height = 0, the optical axis of

the first lens and that of the second lens are parallel with each other in the sub-scanning section.

Claim 61 (new): A light-scanning optical apparatus according to claim 47

further comprising:

a photosensitive member arranged on the surface to be scanned;

a developing unit for developing an electrostatic latent image formed

on said photosensitive member by a light beam focused on said photosensitive member by said

focusing optical system into a toner image;

a transfer unit for transferring the developed toner image onto a toner

image receiving member; and

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a fixing unit for fixing the transferred toner image on the toner image

receiving member.

Claim 62 (new): A light-scanning optical apparatus according to claim 47

further comprising a printer controller for transforming code data input from an external device

into an image signal and inputting the image signal into said light-scanning optical apparatus.